



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,567	11/24/2003	Justin Russell Bendich	SJO920030051US1	5721
45216	7590	05/16/2007		
Kunzler & McKenzie 8 EAST BROADWAY SUITE 600 SALT LAKE CITY, UT 84111			EXAMINER SIKRI, ANISH	
			ART UNIT 2109	PAPER NUMBER
			MAIL DATE 05/16/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/720,567

Applicant(s)

BENDICH ET AL.

Examiner

Anish Sikri

Art Unit

2109

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 11/24/2003.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Information Disclosure Statement***

The information disclosure statement submitted on 11/24/2003 been considered by the Examiner and made of record in the application file.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims **14, 21 and 22** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

**Claim 14** recites the limitation that it refers to claim 1. Whereas Claim 14 is of a system and Claim 1 is of an apparatus. Claim 14 should refer to Claim 11, which refers to a system. Appropriate correction is needed.

Art Unit: 2109

**Claim 21** recites the limitation that it refers to claim 20. Whereas Claim 21 is of an apparatus and Claim 20 is of a computer readable storage medium. Claim 21 should refer to Claim 20, which refers to a computer readable storage medium. Appropriate correction is needed.

**Claim 22** recites the limitation that it refers to claim 21. Whereas Claim 21 is of an apparatus and Claim 21 is of a computer readable storage medium. Claim 22 should refer to Claim 21, which refers to a computer readable storage medium. Appropriate correction is needed.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1-6, 15-20** are rejected under U.S.C. 102(b) as being anticipated by Gajjar et al (US Pub 20020174306).

Consider **claim 1**, Gajjar et al clearly discloses modeling apparatus for provisioning a storage resource, the apparatus comprising (Gajjar et al, [0007]-[0009]): a monitoring module configured to monitor a plurality of existing storage resources corresponding to a client (Gajjar et al, [0007]-[0009]), one of the plurality of existing storage resources designated as a model storage resource (Gajjar et al, [0007]-[0009]); a policy module configured to store a plurality of storage provisioning policies (Gajjar et al, [0007]-[0009]), the plurality of storage provisioning policies defining a modeling policy (Gajjar et al, [0007]-[0009]). A provisioning module configured to provision a new storage resource for the client according to the modeling policy (Gajjar et al, [0007]-[0008]), the new storage resource modeled after the model storage resource (Gajjar et al, [0007]-

Art Unit: 2109

[0008]). Gajjar et al's invention clearly shows the use of a storage provisioning policies for the purpose of allocating new storage resources to the apparatus.

Consider **Claim 2**, and as applied to claim 1, Gajjar et al discloses a specification module configured to allow a user to specify one of the plurality of storage provisioning policies (Gajjar et al, [0007]-[0009] and [0032]-[0033], and [0044]). Gajjar et al's invention clearly shows the use of a storage provisioning policies for the purpose of allocating new storage resources to the apparatus.

Consider **Claim 3**, and as applied to claim 1 above, Gajjar et al discloses where a model storage resource is stored in a storage pool in a storage server (Gajjar et al, [0023]) and the modeling policy specifies a storage location in which the new storage resource is provisioned (Gajjar et al, [0007]-[0008]). Gajjar et al's invention clearly shows the use of a storage provisioning policies for the purpose of allocating new storage resources to the apparatus.

Consider **Claim 4**, and as applied to claim 3 above, Gajjar et al discloses the storage location comprises the same storage server as the model storage resource (Gajjar et al, [0023]-[0024]). Gajjar et al's invention clearly shows that the storage can reside in a single standing server for the purpose of locally allocating storage resources locally.

Consider **Claim 5**, and as applied to claim 4 above, Gajjar et al, discloses the storage location comprises the same storage pool as the model storage resource

(Gajjar et al, [0023]). Gajjar et al's invention clearly shows that the locations of the storage resources are in the same apparatus.

Consider **Claim 6**, and as applied to claim 1 above, Gajjar et al, discloses the modeling policy specifies a model group to which the model storage resource belongs (Gajjar et al, [0007]-[0008]-[0009]). Gajjar et al invention clearly shows on how the modeling policy identifies the physical groups to which the storage resource belongs to on the apparatus.

Consider **Claim 15**, Gajjar et al discloses a computer readable storage medium comprising computer readable code configured to carry out a process for provisioning a storage resource (Gajjar et al, [0029]-[0030]), the process comprising: monitoring a plurality of existing storage resources corresponding to a client (Gajjar et al, [0007]-[0009] and [0032]-[0033], and [0044]); storing a plurality of storage provisioning policies (Gajjar et al, [0007]-[0009] and [0032]-[0033], and [0044]), the plurality of storage provisioning policies defining a modeling policy (Gajjar et al, [0007]-[0009]) and the provisioning a new storage resource for the client according to the storage provisioning policies (Gajjar et al, [0007]-[0009] and [0032]-[0033], and [0044]); the new storage resource modeled after one of the plurality of existing storage resources (Gajjar et al, [0007]-[0008]), the new storage resource modeled after the model storage resource (Gajjar et al, [0007]-[0008]). Gajjar et al's invention clearly shows the use of a storage provisioning polices for the purpose of allocating new storage resources to the system program.

Consider **Claim 16**, and as applied to claim 15 as above, Gajjar et al discloses disclose the process further comprises allowing a user to specify one of the plurality of storage provisioning policies (Gajjar et al, [0007]-[0008]). Gajjar et al's invention clearly shows the use of a storage provisioning policies for the purpose of allocating new storage resources to the system program.

Consider the **Claim 17**, and as applied to claim 15 as above, Gajjar et al as discloses the model storage resource is stored in a storage pool in a storage server (Gajjar et al, [0023]) and the modeling policy specifies a storage location in which the new storage resource is provisioned (Gajjar et al, [0007]-[0008]). Gajjar et al's invention clearly shows the use of a storage provisioning policies for the purpose of allocating new storage resources to the system program.

Consider the **Claim 18**, and as applied to claim 17 as above, Gajjar et al discloses the storage location comprises the same storage server as the model storage resource (Gajjar et al, [0023]-[0024]). Gajjar et al's invention clearly shows that the storage can reside in a single standing server for the purpose of locally allocating storage resources.

Consider **Claim 19**, and as applied to claim 18 as above, Gajjar et al, discloses the storage location comprises the same storage pool as the model storage resource



Art Unit: 2109

(Gajjar et al, [0023]). Gajjar et al invention clearly shows that the locations of the storage resources are in the same system program.

Consider **Claim 20**, and as applied to claim 15 as above, Gajjar et al, discloses the modeling policy specifies a model group to which the model storage resource belongs (Gajjar et al, [0007]-[0008]-[0009]). Gajjar et al invention clearly shows on how the modeling policy identifies the physical groups to which the storage resource belongs to on the apparatus.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims **7-14, 21 and 22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Schutzman et al (US Pub 2003/0018656), in view of Gajjar et al (US Pub 20020174306), and further in view of Dalal et al (US Pub 20040123063).

Consider **Claim 7**, and as applied to claim 6 above, Gajjar et al, fails to disclose the model group comprises a volume group used by the client. Nonetheless, Dalal et al clearly shows the model group comprises a volume group used by the client (Dalal et al, [0019] and [0188]). Dalal et al's invention clearly shows on the use of volume groups. Therefore it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement the use volume groups by client, taught by Gajjar et al, for the purpose of creating local volume groups extents for allocating and managing storage resources on the apparatus.

Consider **Claim 8**, and as applied to claim 1 above, Gajjar et al as modified by Dalal et al, fails to disclose the new storage resource is assigned to a file system and expands a storage capacity of the file system. Nonetheless, Dalal et al clearly shows the new storage resource is assigned to a file system and expands a storage capacity of the file system (Dalal et al, [0018]). The use of file system is clearly shown in Dalal et al's invention of storage allocation. Therefore it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement the use of a

Art Unit: 2109

file system, taught by Gajjar et al, for the purpose having storage resources/physical groups to be configured to use by the existing file system of the apparatus/server easily.

Consider **Claim 9**, and as applied to claim 8 above, Gajjar et al as modified by Dalal et al, fails to disclose the modeling policy specifies a model group to which the model storage resource belongs, the model group comprising a volume group in which the file system is stored. Nonetheless, Dalal et al discloses the modeling policy specifies a model group to which the model storage resource belongs, the model group comprising a volume group in which the file system is stored (Dalal et al, [0018],[0019] and [0188]). Dalal et al's invention clearly shows on the use of volume groups, which are configured with the file system. Therefore it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement the use volume groups configured with the file system of the server, taught by Gajjar et al, for the purpose of creating and integrating the local volume groups extents to the file system to increase the storage resource capabilities of the apparatus.

Consider **Claim 10**, and as applied to claim 1, Gajjar et al, fails to disclose the new storage resource is assigned to a raw logical volume and expands a storage capacity of the raw logical volume. Nonetheless, Dalal et al discloses the new storage resource is assigned to a raw logical volume and expands a storage capacity of the raw logical volume (Dalal et al, [0017]). Dalal et al invention clearly shows on how logical volumes are added to the system. Therefore it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement the use

logical volumes configured to be used in the system, taught by Gajjar et al, for the purpose of increasing or allocating storage resources of the apparatus.

Consider **Claim 11**, Gajjar et al discloses a storage resource manager server configured to monitor a plurality of existing storage resources corresponding to the client (Gajjar et al, [0007]-[0008], [0044]) and to provision a new storage resource for the client according to a modeling policy (Gajjar et al, [0032]-[0033], and [0044]) and the new storage resource modeled after a model storage resource; and a storage server configured to store the model storage resource and the new storage resource (Gajjar et al, [0007]-[0008]).

Gajjar et al fails to disclose a system, which indicates a client having a file system. Nonetheless, Dalal et al clearly disclose a client having a file system (Dalal et al, [0018]). The use of file system is clearly shown in Dalal et al's invention of storage allocation.

Gajjar et al's invention clearly shows the use of a storage provisioning policies for the purpose of allocating new storage resources to the system. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement the use of a file system, taught by Gajjar et al, for the purpose of accessing the new storage resources of the system.

Consider **Claim 12**, and as applied to claim 11 above, Gajjar et al, discloses storage resource manager repository configured to store a plurality of storage

Art Unit: 2109

provisioning policies, the plurality of storage provisioning policies defining the modeling policy (Gajjar et al, [0007]-[0008] and [0032]-[0033], and [0044]). Gajjar et al's invention clearly shows the use of a storage provisioning policies for the purpose of allocating new storage resources to the system.

Consider **Claim 13**, and as applied to claim 12 above, Gajjar et al discloses a module where configured to allow a user to access and specify one of the plurality of storage provisioning policies (Gajjar et al, [0032]-[0033], and [0044]). Gajjar et al's invention clearly shows the use of a storage provisioning policies for the purpose of allocating new storage resources to the system by the user.

Consider **Claim 14**, and as applied to claim 1 above, Gajjar et al, discloses a storage resource is stored in a storage pool in the storage server (Gajjar et al, [0023]) and the modeling policy specifies a storage location in which the new storage resource is provisioned and specifies a model group to which the model storage resource belongs (Gajjar et al, [0007]-[0008]). Gajjar et al's invention clearly shows the use of a storage provisioning policies for the purpose of allocating new storage resources to the system.

Consider **Claim 21**, and as applied to claim 20 as above, Gajjar et al, fails to disclose the model group comprises a volume group used by the client. Nonetheless, Dalal et al clearly shows the model group comprises a volume group used by the client

Art Unit: 2109

(Dalal et al, [0018]-[0019] and [0188]). Dalal et al's invention clearly shows on the use of volume groups. Therefore it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement the use volume groups by client, taught by Gajjar et al, for the purpose of creating local volume groups extents for allocating and managing storage resources on the system apparatus.

Consider **Claim 22**, and as applied to claim 21 as above, Gajjar et al as modified by Dalal et al, fails to disclose new storage resource corresponds to a file system and wherein the model group comprises a volume group in which the file system is stored. Nonetheless, Dalal et al discloses the new storage resource corresponds to a file system and wherein the model group comprises a volume group in which the file system is stored (Dalal et al, [0018]-[0019] and [0188]). Dalal et al's invention clearly shows on the use of volume groups, which are configured with the file system. Therefore it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement the use volume groups configured with the file system of the server, taught by Gajjar et al, for the purpose of creating and integrating the local volume groups extents to the file system to increase the storage resource capabilities of the system apparatus.

**Conclusion**

Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Hand-delivered responses** should be brought to

Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Anish Sikri whose telephone number is (571) 270-1783. The Examiner can normally be reached on Monday-Thursday from 6:30am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Rafael Pérez-Gutiérrez can be reached on (571) 272-7915. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.



Art Unit: 2109

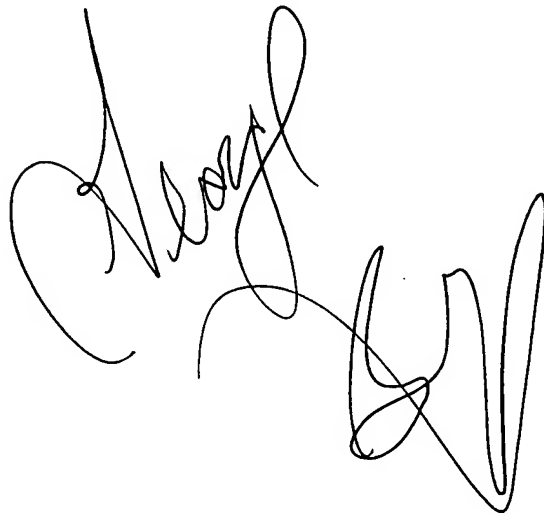
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 571-272-4100.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

*Anish Sikri*

A.S./as

May 13, 2007

A handwritten signature in black ink, appearing to read 'Anish Sikri', with a large, stylized flourish at the end.